

Claim Amendments:

Please replace the claims with the following claim set:

1. (Currently Amended) ~~Loading~~ Protective system for protection of a loading system for transfer of hydrocarbons between an installation on the sea bed ~~[(16)]~~ and a floating vessel ~~[(10)]~~ in areas exposed to drifting ice, comprising:

a submerged turret loading arrangement including a loading/unloading buoy ~~[(19)]~~ configured for introduction and releasable securement in a downwardly open receiving space ~~[(15)]~~ in the vessel, ~~[(10),]~~

a flexible riser ~~[(18)]~~ extending from the sea bed installation ~~[(24)]~~ to the buoy ~~[(19)]~~ intended to be securely connected to a corresponding pipe on board the vessel, ~~[(10),]~~ and

a plurality of mooring lines ~~[(17)]~~ connected to the buoy ~~[(19)]~~ and extending outwards therefrom, the buoy ~~[(19)]~~ and the mooring lines ~~[(17)]~~ serving as an anchoring system allowing the vessel ~~[(10)]~~ to weathervane, characterized in that the system comprises:

a protective means ~~[(20)]~~ for protecting the riser ~~[(18)]~~ from impacts when the riser ~~[(18)]~~ is in an extended, load transferring mode, and

a protective structure ~~[(24)]~~ located in or on the sea bed ~~[(16)]~~ for protection of the riser ~~[(18)]~~ when in a retracted position in a non-operative mode; wherein ~~[(that)]~~ the protective structure ~~(24)-containing~~ contains means ~~[(28)]~~ for storing the riser ~~[(18)]~~ in a protected position when disconnected and retracted from the vessel, ~~[(10).]~~

2. (Currently Amended) Loading system according to claim 1, wherein the riser ~~[(18)]~~ is protected at least along a portion of its length, the riser protection ~~[(20)]~~ being preferably suspended from the submerged turret buoy ~~[(19)]~~ by means of a plurality of chains or wires, ~~[(21).]~~

3. (Currently Amended) Loading system according to claim 1, wherein the protective means ~~[(20)]~~ is formed by a plurality of separate, preferably truncated conical elements, ~~[(35),]~~ each being suspended from the chains, wires or the like, ~~[(21).]~~

4. (Currently Amended) Loading system according to claim 3, wherein the conical elements [(35)] have a smaller upper diameter and a larger lower diameter or vice versa.

5. (Currently Amended) Loading system according to claim 1, wherein the protective structure [(24)] is equipped with a top portion [(25)] being more or less flush with the adjacent sea bed, [(16),] the top portion [(25)] being provided with an opening [(30)] communicating with the interior of the protective structure, [(24).]

6. (Currently Amended) Loading system according to claim 5, wherein the protective structure [(24)] is provided with a vertical, downwardly open cell [(26)] located directly below the opening [(30)] in the top portion, [(25).]

7. (Currently Amended) Loading system according to claim 1, wherein the riser [(18)] may be completely retracted into the protective structure [(24)] when idle, the riser [(18)] being stored on a reel [(28)] arranged inside the protective structure, [(24).]

8. (Currently Amended) Loading system according to claim 7, wherein the reel [(28)] rotates around a horizontal axis, the riser [(18)] being connected to a supply line [(29)] for hydrocarbons by means of a swivel, allowing the reel [(28)] to rotate relative to the supply line, [(29).]

9. (Currently Amended) Loading system according to claim 1, wherein the riser protection [(20)] may be completely retracted into the cell [(26)] when the riser [(18)] is not in use.

10. (Currently Amended) Loading system according to claim 9, wherein the riser protection elements [(35)] are stacked on top of each other in a retracted position inside the cell, [(26).]

11. (Currently Amended) Loading system according to claim 1, wherein the protective means, [(20),] at its lower end, is equipped with a socket, [(22),] intended to interact with a retaining means on the protective structure, [(24).]

12. (Currently Amended) Loading system according to claim 11, wherein the lower ends of the supporting chains [(21)] are attached to the socket, [(22).]

13. (Currently Amended) Loading system according to claim 11, wherein the socket [(22)] is equipped with locking means [(39)] for securing the socket [(22)] in a locked position with respect to the retaining means on the protective structure, [(24).]

14. (Currently Amended) Loading system according to claim 13, wherein the locking means [(39)] are releasably arranged, enabling the socket [(22)] to be lowered down into the lower part of the protective structure [(24)] to a retracted position together with the stacked protection elements [(35)] when the riser [(18)] is idle.

15. (Currently Amended) Loading system according to claim 11, wherein the lower part of the cell wall is provided with a retaining means to support the socket [(22)] when in a retracted position within the protective structure, [(24).]

16. (Currently Amended) Loading system according to claim 5, wherein the opening [(30)] at the top of the protective structure [(24)] is provided with a flexible deflector, [(34),] preventing soil to drop down into the protective structure [(24)] through the opening, [(30).]

17. (Currently Amended) Loading system according to claim 11, wherein the socket [(22)] has an upwardly protruding, conical shape intended to interact with the corresponding opening in the top slab [(25)] of the protective structure, [(24),] thereby preventing the socket [(22)] from moving upwards.

18. (Currently Amended) Loading system according to claim 6, wherein a slot [[(33)]] is provided in the cell wall adjacent the reel [[(28)]]

19. (Currently Amended) Loading system according to claim 18, wherein the slot [[(33)]] having a height that is larger than the maximum expected vertical heave amplitude of the vessel [[(10)]] and the width of the slot [[(33)]] is larger than diameter of the riser [[(18)]]

20. (Currently Amended) Method for protecting a loading system for transfer of hydrocarbons when mooring a vessel [[(10)]] to a submerged turret buoy, comprising: [[(19)],] ~~characterized by the steps of~~

bringing [[the]] a vessel [[(10)]] into position above a submerged riser [[(18)],] the upper end of which being provided with a submerged turret buoy [[(19)],]

pulling the riser [[(18)]] with its turret buoy [[(19)]] upwards into engagement with corresponding means [[(15)]] on the vessel [[(10)],] and

further lifting a riser protection [[(20)]] encompassing the riser [[(18)]] upwards, the riser protection protecting at least the upper portion of the riser when in a retracted position. [[(18)].]

21. (Currently Amended) Method for mooring according to claim 20, wherein the riser [[(18)]] is reeled out from a stored position on a reel [[(28)]] on the sea bed [[(16)].]

22. (Currently Amended) Method according to claim 21, wherein the riser protection means [[(20)]] is raised towards the vessel [[(10)]] from a retracted position on the sea bed [[(16)]] to an extended position in the same operation as for lifting the riser [[(18)].]

23. (Currently Amended) Method according to claim 21, wherein the riser [[(18)]] is reeled out from a reel [[(28)]] located in a protective structure [[(24)]] in the sea bed [[(16)].]

24. (Currently Amended) Method according to claim 23, wherein the riser [(18)] is reeled out such extent that a sagging bend is provided at the lower end of the riser, [(18),] compensating at any time for possible heave caused by vessel. [(10).]

25. (Currently Amended) Method according to claim 20, wherein the riser [(18)] and its protection means [(20)] may be completely retracted to an inactive position on the sea bed. [(16).]

26. (Currently Amended) Method according to claim 20, wherein the riser [(18)] and its riser protection [(20)] are stored in a retracted position on the sea bed, [(16),] a socket [(22)] forming the lower end of the riser protection means [(20)] resting on a support inside a protective structure on the sea bed. [(16).]

27. (Currently Amended) Method according to claim 26, wherein the riser, [(18),] the socket [(22)] and the riser protection means [(20)] and the submerged turret buoy [(19)] are lifted upwards until the socket [(22)] engages with an engagement means in the top slab [(25)] of the protective structure, [(24),] whereafter the riser [(18)] and the submerged turret buoy [(19)] are [(is)] lifted further upwards towards the vessel subsequently lifting the riser protection means [(20)] from a stacked position to an extended position.

28. (Currently Amended) Method according to claim 20, wherein the riser protection, [(20),] comprising a plurality of truncated, conical cylinders [(35)] suspended from each other by means of chains or lines [(21)] are stacked on top of each other during the retraction process.

29. (Currently Amended) Method for installing a riser protection system on a sea bed, comprising: characterized in that
establishing a protective structure [(24)] is established in the sea bed to protect a portion of the riser when in a retracted position, [(16),] and

lowering a separate, prefabricated unit comprising a reel, [(28)], a riser [(18)] reeled on to the reel, [(28)] and a top intended to form the top of the protective structure, [(24)], down into the protective structure [(24)] and connecting an end of the reeled riser [(18)] to a supply line [(29)] for hydrocarbons, the connection being achieved by means of a swivel, and swivel.

wherein an upper end of the riser is provided with a loading/unloading buoy.